

CLAIMS:

1. (Currently amended) A method, in a computer system, for processing user defined Boolean variables in a multi-dimensional electronic spreadsheet comprising a plurality of cells identified by a cell address along each dimension, said method comprising the steps of:

providing a model of a real-world condition by configuring a memory of the computer system to represent a multi-dimensional electronic spreadsheet model of the real-world condition;

providing, in the computer system, a user options table data structure identifying one or more user options that are defined as Boolean variables, wherein the user options table data structure comprises a record for each user option of the one or more user options, and wherein each record stores an identifier associated with a corresponding user option for the record;

providing a user interface, in the computer system, through which the one or more user options are defined, wherein a status of the one or more user options is set via the user interface to either a first Boolean variable state corresponding to a “True” state or a second Boolean variable state corresponding to a “False” state;

referencing a selected user option of the one or more user options in one or a plurality of cells of the multi-dimensional electronic spreadsheet by including an identifier associated with the selected user option in content of the one or a plurality of cells;

receiving an input to the user interface, via a peripheral device coupled to the computing system, the input specifying a status setting of the selected user option;

reconfiguring the memory of the computer system to represent a modified model of the real-world condition based on the input received via the user interface;

determining a value of each of the one or plurality of cells based on [[a]] the status of the selected user option as either being the first Boolean variable state or the second Boolean variable state, as specified by the input to [[via]] the user interface; and

providing an output of the ~~multi-dimensional electronic spreadsheet~~ modified model via an output device of the computer system based on the determined value of

each of the one or plurality of cells, wherein the output of the modified model provides information to a user regarding a scenario of the real-world condition in which the selected user option has a status setting corresponding to the received input.

2. (Previously presented) The method according to claim 1, wherein each record in the user options table data structure comprises a user option index, a name of a corresponding user option associated with the record, and a status value of the corresponding user option associated with the record.

3. (Previously presented) The method according to claim 1 wherein the user interface comprises:

- a user options listing portion that lists each of the one or more user options,
- a status portion that identifies, for each user option of the one or more user options, a current status of the user option, and
- a user controls portion that provides user selectable control elements associated with each of the one or more user options that, when selected by a user via an input device, changes a status of a corresponding user option in the user options listing and updates a corresponding record in the user options table data structure.

4. (Previously presented) The method according to claim 1 wherein referencing a selected user option of the one or more user options in one or a plurality of cells of the multi-dimensional electronic spreadsheet comprises inserting a name of the selected user option as a named range variable in an equation of the one or plurality of cells, and wherein determining a value of each of the one or plurality of cells comprises computing the value of the one or plurality of cells according to a value corresponding to a Boolean variable state of the selected user option.

5. (Previously presented) The method according to claim 3, wherein the user option listing includes an editor through which a name of a user option in the one or more user options is changed.

6. (Canceled)
7. (Previously presented) The method according to claim 4, wherein the value corresponding to the Boolean variable state is a numerical one when the Boolean variable state is “True”, and wherein the value corresponding to the Boolean variable state is a numerical zero when the Boolean variable state is “False.”
8. (Previously presented) The method according to claim 3, wherein the user interface is a graphical user interface, and wherein the control elements are virtual buttons of the graphical user interface.
9. (Previously presented) The method according to claim 8, wherein the user interface comprises a dialog box displayed on a screen of the computer system.
- 10-11. (Canceled)
12. (Previously presented) The method of claim 1, further comprising:
providing an application for execution by the computer system, wherein the application is defined by the multi-dimensional electronic spreadsheet, and wherein the output of the multi-dimensional electronic spreadsheet represents a scenario of the application specified by the status of the one or more user options.
13. (Currently amended) The method of claim 1, wherein the output device is a display device, the model of the real-world condition is a financial model, and wherein the output of the ~~multi-dimensional electronic spreadsheet~~ modified model is provided to a user via the display device.
14. (Previously presented) The method of claim 3, wherein the one or more user options that are listed in the user options listing portion of the user interface are presented in the user options listing portion according to an index sequence of indices of the one or more user options, starting with an index representing a last recorded user option.

15. (Currently amended) A computing system for processing user defined Boolean variables in a multi-dimensional electronic spreadsheet comprising a plurality of cells identified by a cell address along each dimension, the computing system comprising:

a processor;

a storage device coupled to the processor, wherein the storage device provides a user options table data structure identifying one or more user options that are defined as Boolean variables, wherein the user options table data structure comprises a record for each user option of the one or more user options, and wherein each record stores an identifier associated with a corresponding user option for the record; and

a memory coupled to the processor, wherein the memory contains instructions which, when executed by the processor, cause the processor to:

provide a model of a real-world condition by configuring the memory of the computer system to represent a multi-dimensional electronic spreadsheet model of the real-world condition;

provide a user interface through which the one or more user options are defined, wherein a status of the one or more user options is set via the user interface to either a first Boolean variable state corresponding to a “True” state or a second Boolean variable state corresponding to a “False” state;

reference a selected user option of the one or more user options in one or a plurality of cells of the multi-dimensional electronic spreadsheet by including an identifier associated with the selected user option in content of the one or a plurality of cells;

receive an input to the user interface, via a peripheral device coupled to the computing system, the input specifying a status setting of the selected user option;

reconfigure the memory of the computer system to represent a modified model of the real-world condition based on the input received via the user interface;

determine a value of each of the one or plurality of cells based on [[a]] the status of the selected user option as either being the first Boolean variable state or the second Boolean variable state, as specified [[via]] by the input to the user interface; and

provide an output of the ~~multi-dimensional electronic spreadsheet~~ modified model via an output device of the computer system based on the determined value of each of the

one or plurality of cells, wherein the output of the modified model provides information to a user regarding a scenario of the real-world condition in which the selected user option has a status setting corresponding to the received input.

16. (Previously presented) The computing system according to claim 15, wherein each record in the user options table data structure comprises a user option index, a name of a corresponding user option associated with the record, and a status value of the corresponding user option associated with the record.

17. (Previously presented) The computing system according to claim 15, wherein the user interface comprises:

- a user options listing portion that lists each of the one or more user options,
- a status portion that identifies, for each user option of the one or more user options, a current status of the user option, and
- a user controls portion that provides user selectable control elements associated with each of the one or more user options that, when selected by a user via an input device, changes a status of a corresponding user option in the list user options listing and updates a corresponding record in the user options table data structure.

18. (Previously presented) The computing system according to claim 15, wherein the instructions cause the processor to reference a selected user option of the one or more user options in one or a plurality of cells of the multi-dimensional electronic spreadsheet by inserting a name of the selected user option as a named range variable in an equation of the one or plurality of cells, and wherein the instructions cause the processor to determine a value of each of the one or plurality of cells by computing the value of the one or plurality of cells according to a value corresponding to a Boolean variable state of the selected user option.

19. (Previously presented) The computing system according to claim 17, wherein the user option listing includes an editor through which a name of a user option in the one or more user options is changed.

20. (Previously presented) The computing system according to claim 18, wherein the value corresponding to the Boolean variable state is a numerical one when the Boolean variable state is “True,” and wherein the value corresponding to the Boolean variable state is a numerical zero when the Boolean variable state is “False.”

21. (Currently amended) A computer program product comprising a tangible computer useable medium having a computer readable program, wherein the computer readable program, when executed on a computing device, causes the computing device to:

provide a model of a real-world condition by configuring a memory of the computer system to represent a multi-dimensional electronic spreadsheet model of the real-world condition;

provide a user options table data structure identifying one or more user options that are defined as Boolean variables, wherein the user options table data structure comprises a record for each user option of the one or more user options, and wherein each record stores an identifier associated with a corresponding user option for the record; and

provide a user interface through which the one or more user options are defined, wherein a status of the one or more user options is set via the user interface to either a first Boolean variable state corresponding to a “True” state or a second Boolean variable state corresponding to a “False” state;

reference a selected user option of the one or more user options in one or a plurality of cells of the multi-dimensional electronic spreadsheet by including an identifier associated with the selected user option in content of the one or a plurality of cells;

receive an input to the user interface, via a peripheral device coupled to the computing system, the input specifying a status setting of the selected user option;

reconfigure the memory of the computer system to represent a modified model of the real-world condition based on the input received via the user interface;

determine a value of each of the one or plurality of cells based on [[a]] the status of the selected user option as either being the first Boolean variable state or the second Boolean variable state, as specified [[via]] by the input to the user interface; and

provide an output of the ~~multi-dimensional electronic spreadsheet~~ modified model via an output device of the computer system based on the determined value of each of the one or plurality of cells, wherein the output of the modified model provides information to a user regarding a scenario of the real-world condition in which the selected user option has a status setting corresponding to the received input.

22. (Previously presented) The computer program product according to claim 21, wherein the user interface comprises:

a user options listing portion that lists each of the one or more user options,
a status portion that identifies, for each user option of the one or more user options, a current status of the user option, and

a user controls portion that provides user selectable control elements associated with each of the one or more user options that, when selected by a user via an input device, changes a status of a corresponding user option in the list user options listing and updates a corresponding record in the user options table data structure.

23. (Previously presented) The computer program product according to claim 21, wherein the computer readable program causes the computing device to reference a selected user option of the one or more user options in one or a plurality of cells of the multi-dimensional electronic spreadsheet by inserting a name of the selected user option as a named range variable in an equation of the one or plurality of cells, and wherein the computer readable program causes the computing device to determine a value of each of the one or plurality of cells by computing the value of the one or plurality of cells according to a value corresponding to a Boolean variable state of the selected user option.